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Committee on the Peaceful Uses of Outer Space
Scientific and Technical Subcommittee
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Vienna, 29 January–9 February 2018

Draft report

II. United Nations Programme on Space Applications

1. In accordance with General Assembly resolution 72/77, the Subcommittee considered agenda item 5, entitled "United Nations Programme on Space Applications".

2. The representatives of China, Germany, Hungary, Indonesia, Italy, Japan, Mexico, Nigeria, Pakistan, the Russian Federation, Sri Lanka and the United Arab Emirates made statements under agenda item 5. A statement was also made under the item by the representative of Argentina on behalf of the Group of Latin American and Caribbean States. During the general exchange of views, statements relating to the item were made by representatives of other member States.

3. The Subcommittee heard a scientific and technical presentation entitled "[...]", by the representative of the Russian Federation.

A. Activities of the United Nations Programme on Space Applications

4. The Subcommittee recalled that the General Assembly, in its resolution 72/77, had recognized the capacity-building activities under the United Nations Programme on Space Applications, which provided unique benefits for Member States, in particular developing countries, participating in those activities.

5. The Subcommittee recalled that the United Nations Programme on Space Applications was one of the achievements of the first United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE I), and that both UNISPACE II (1982) and UNISPACE III (1999) had contributed to the development of the Programme's mandates. The Subcommittee noted with satisfaction that the Programme had played an instrumental role in assisting developing countries in acquiring knowledge, skills and practical experience for the application of space technology for the purpose of economic, social and cultural development. The Subcommittee also noted that UNISPACE+50 could provide a great opportunity to identify the needs of developing countries that could be addressed by the Office for Outer Space Affairs through international cooperation.

6. At the 875th meeting, on 29 January, the Director of the Office for Outer Space Affairs, following the request made by the General Assembly in its

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resolution 72/77, apprised the Subcommittee of the status of the Office's activities under the United Nations Programme on Space Applications. She also informed the Subcommittee that, as part of the Office's responsibilities to implement important and complex plans, activities and initiatives under the UNISPACE+50 process, the Office was continuing to undertake a broad range of important measures aimed at accommodating the strategic developments in its capacity-building programme of work, including its Programme on Space Applications. Through that Programme, the Office could deliver much more capacity-building that was focused on the needs of developing countries and global problems of humanity while involving more cross-cutting and topical issues and a wider circle of qualified experts, thereby enabling the delivery of capacity-building efforts at levels corresponding to the highest current standards and in accordance with the expectations of Member States.

7. The Subcommittee noted with appreciation that, since its previous session, in-cash and in-kind contributions, including the provision of staff on a non-reimbursable loan basis, had been offered for the activities of the Office, including the United Nations Programme on Space Applications, by the following: Austrian Research Promotion Agency (FFG); Institute for Scientific Research of Boston College (United States); China Manned Space Agency; China National Space Administration; Delta State University (United States); Department of Science and Technology, Government of South Africa; DigitalGlobe; Federal University of Santa Maria (Brazil); European Commission; European Space Agency (ESA); German Aerospace Centre (DLR); Federal Ministry for Economic Affairs and Energy of Germany; Government of China; Agustin Codazzi National Geographic Institute, Government of Colombia; Government of Germany; Government of Japan; Government of Switzerland; Government of the United Arab Emirates; Government of the United States; Centre for Space Science and Technology Education in Asia and the Pacific; Japan Aerospace Exploration Agency (JAXA); Joanneum Research Forschungsgesellschaft mbH (Austria); Kyushu Institute of Technology (Japan) National Oceanic and Atmospheric Administration (United States); National Disaster Reduction Centre of China; People's Insurance Company of China; Politecnico di Torino, Instituto Superiore Mario Boella and Instituto Nazionale di Ricerca Metrologica (Italy); Prince Sultan bin Abdulaziz International Prize for Water (PSIPW), King Saud University (Saudi Arabia); Samara University (Russian Federation); Stellenbosch University (South Africa); Scientific and Technological Research Council of Turkey (TÜBİTAK); Office for the Coordination of Humanitarian Affairs of the Secretariat; Mohammed Bin Rashid Space Centre (United Arab Emirates); University of Bonn (Germany); University of Geneva (Switzerland); University of Vienna, National Point of Contact Space Law and University of Salzburg (Austria); World Health Organization; and World Vision.

8. The Subcommittee also noted that, since the last session of the Subcommittee, in 2017, in the framework of its capacity-building activities, including the implementation of the United Nations Programme on Space Applications, the Office had concluded memorandums of understanding, funding agreements and framework agreements. It had also extended those, where appropriate, with the Governments of Austria, Italy, Switzerland and the United States; the Bureau of Oceans and International Environmental and Scientific Affairs of the Department of State of the United States; the Italian Space Agency (ASI); the United Arab Emirates Space Agency; the United Nations Development Programme (UNDP); the United Nations Institute for Training and Research; the University of Bonn (Germany); the World Space Week Association; Paz y Cooperación; DigitalGlobe (United States); and the People's Insurance Company of China.

9. The Subcommittee further noted that the Government of Japan, through the Kyushu Institute of Technology, and the Politecnico di Torino and Instituto Superiore Mario Boella, with the collaboration of the Istituto Nazionale di Ricerca Metrologica, had continued to provide long-term fellowship programme opportunities for students from developing countries under the United Nations/Japan Long-term Fellowship Programme on Nanosatellite Technologies, and the United Nations/Italy Long-term

Fellowship Programme on Global Navigation Satellite Systems and Related Applications, respectively.

10. The Subcommittee noted the Drop Tower Experiment Series, which was a fellowship programme of the Office for Outer Space Affairs, undertaken in collaboration with the Center of Applied Space Technology and Microgravity and DLR, in which students could study microgravity by performing experiments in a drop tower. In the fourth cycle of the fellowship programme, a team from the Warsaw University of Technology was awarded the fellowship through competitive selection. A new, fifth cycle was under way.

11. The Subcommittee also noted the continued collaboration between the Office for Outer Space Affairs and the Government of Japan, in collaboration with JAXA, in implementing the United Nations/Japan Cooperation Programme on CubeSat Deployment from the International Space Station Japanese Experiment Module (Kibo), known as "KiboCUBE". The programme had been launched in September 2015. After the selection of the team from the University of Nairobi for the first round, a team from the Universidad del Valle of Guatemala was selected for the second round; applications for the third round for 2018 and 2019 were currently open. The objective of the Cooperation Programme was to promote international cooperation and capacity-building in space technology and its applications under the Human Space Technology Initiative by providing opportunities for educational and research institutions in developing countries to deploy small satellites (CubeSats) from the Japanese Experiment Module (Kibo).

12. The Subcommittee continued to express its concern over the still-limited financial resources available for carrying out the capacity-building activities of the Office, including the United Nations Programme on Space Applications, and appealed to Member States to provide support through voluntary contributions.

13. The Subcommittee noted that the priority areas of the Programme were environmental monitoring, natural resource management, satellite communications for tele-education and telemedicine applications, disaster risk reduction, the use of global navigation satellite systems (GNSS), the Basic Space Science Initiative, climate change, the Basic Space Technology Initiative and the Human Space Technology Initiative, and biodiversity and ecosystems.

14. The Subcommittee also noted that the Programme was aimed at promoting, through international cooperation, the use of space technologies and space-related data for sustainable economic and social development in developing countries by raising the awareness of decision makers of the cost-effectiveness and additional benefits to be obtained; establishing or strengthening capacity in developing countries to use space technology; and strengthening outreach activities to disseminate awareness of the benefits obtained.

15. The Subcommittee further noted the following activities under the Programme on Space Applications, conducted by the Office in 2017:

(a) Expert meeting on the preparation of the United Nations/Italy Workshop on the Open Universe Initiative, held in Rome on 11 and 12 April 2017 (A/AC.105/2017/CRP.22);

(b) Office for Outer Space Affairs and Committee on Space Research coordination meeting in support of the preparations for UNISPACE+50, held in Vienna on 22 and 23 May 2017 (A/AC.105/2017/CRP.25);

(c) Meeting of the Directors of the regional centres for space science and technology education, affiliated to the United Nations, held in Vienna on 13 and 14 June 2017;

(d) United Nations/United States of America Workshop on the International Space Weather Initiative: the decade after the International Heliophysical Year 2007, held in Boston, United States, from 31 July to 4 August 2017 (A/AC.105/1160);

(e) United Nations/World Health Organization/Switzerland Conference on Strengthening Space Cooperation for Global Health, held in Geneva from 23 to 25 August 2017, with the financial support of the Government of Switzerland (A/AC.105/1161);

(f) United Nations/Austria Symposium on the theme "Access to space: holistic capacity-building for the twenty-first century", held in Graz, Austria, from 3 to 7 September 2017 (A/AC.105/1162);

(g) United Nations/Russian Federation Workshop on Human Capacity-building in Space Science and Technology for Sustainable Social and Economic Development, held in Samara, Russian Federation, from 30 October to 2 November 2017 (A/AC.105/1164);

(h) United Nations/Italy Workshop on the Open Universe initiative, held in Vienna from 20 to 22 November 2017 (A/AC.105/1175);

(i) United Nations/South Africa Symposium on the Basic Space Technology Initiative on the theme "Small satellite missions for scientific and technological advancement", held in Stellenbosch, South Africa, from 11 to 14 December 2017. The report was made available in conference room paper A/AC.105/C.1/2018/CRP.9, and would also be made available in document A/AC.105/1180).

16. The Subcommittee was informed that the Office for Outer Space Affairs was organizing and continuing to organize, capacity-building events, including within the Programme on Space Applications, through joint efforts with the Governments of Argentina, Austria, Brazil, Chile, Germany, Italy, Pakistan and the United States. The Subcommittee was also informed that those events had been planned to cover the following topics: GNSS, space applications for water management, space weather, basic space technology, human space technology, capacity-building in space technology and applications, disaster risk reduction and emergency response. The Subcommittee noted that the Office would provide reports and information on the events at its fifty-sixth session, in 2019.

17. The Subcommittee noted that, in addition to the United Nations conferences, training courses, workshops, seminars and symposiums conducted in 2017 and planned for 2018, the Office for Outer Space Affairs had conducted, and planned to conduct, other activities under the Programme, placing emphasis on the following:

(a) Providing support for capacity-building efforts in developing countries through the regional centres for space science and technology education, affiliated to the United Nations;

(b) Strengthening its long-term fellowship programme, to include support for the implementation of pilot projects;

(c) Ensuring the mainstreaming of the gender perspective into all of its activities;

(d) Promoting the participation of young people in space activities;

(e) Supporting or initiating pilot projects as a follow-up to activities of the Programme in areas of priority interest to Member States;

(f) Providing technical advice, upon request, to Member States, bodies and specialized agencies of the United Nations system and relevant national and international organizations;

(g) Enhancing access to space-related data and other information;

(h) Applying an integrated and cross-sectoral approach to activities, as appropriate.

18. The Subcommittee also noted the highlights of the activities of the regional centres for space science and technology education, affiliated to the United Nations, namely the African Regional Centre for Space Science and Technology Education —

in English Language; the African Regional Centre for Space Science and Technology — in French Language; the Centre for Space Science and Technology Education in Asia and the Pacific; the Regional Centre for Space Science and Technology Education for Latin America and the Caribbean; the Regional Centre for Space Science and Technology Education for Western Asia; and the Regional Centre for Space Science and Technology Education in Asia and the Pacific.

19. The Subcommittee further noted that, on the margins of its current session, a teleconference had been held with representatives of the Office for Outer Space Affairs and representatives of all regional centres for space science and technology education, affiliated to the United Nations, at which the parties had discussed the status of the current cooperation, as well as modalities and directions of future work in the field of capacity-building, taking into account the UNISPACE+50 process.

20. The Subcommittee noted the request made by the Group of Latin American and Caribbean States that the Committee and its subcommittees should strengthen cooperation with regional organizations and institutions, such as the Regional Centre for Space Science and Technology Education for Latin America and the Caribbean, the Space Conference of the Americas and the Society of Latin American Experts in Remote Sensing and Space Information Systems (SELPER), and that the Office for Outer Space Affairs should support cooperation with such organizations through its activities and events.

21. Some delegations expressed the view that the United Nations had to continue to actively promote its role in the cooperation between developing and developed countries, as well as among developing countries, in order to strengthen the infrastructure and technology of the space sector, especially through capacity-building, information-sharing and technology transfer, which could accelerate development in various aspects of life. In that regard, the delegations expressing that view were also of the view that it was important to promote collaboration between developing and developed countries in order to ensure equitable access to space science and technology.

B. Regional and interregional cooperation

22. The Subcommittee recalled that the General Assembly, in its resolution 72/77, had emphasized that regional and interregional cooperation in the field of space activities was essential to strengthen the peaceful uses of outer space, assist Member States in the development of their space capabilities and contribute to the implementation of the 2030 Agenda for Sustainable Development. To that end, the Assembly had requested relevant regional organizations and their groups of experts to offer the assistance necessary so that countries could carry out the recommendations of regional conferences. In that regard, the Assembly had noted the importance of the equal participation of women in all fields of science and technology.

23. The Subcommittee noted that the Government of Nigeria would be hosting the seventh African Leadership Congress on Space Science and Technology for Sustainable Development, which was to be held in Abuja from 5 to 9 November 2018.

24. The Subcommittee also noted that the Government of the Bolivarian Republic of Venezuela and the Bolivarian Agency for Space Activities had hosted the second Venezuelan conference on space technology, held in Caracas from 18 to 20 September 2017.

25. The Subcommittee further noted that the twenty-fourth session of the Asia-Pacific Regional Space Agency Forum, on the theme of space technology for enhanced governance and development, had been held in Bangalore, India, from 14 to 17 November 2017. The twenty-fifth session would be held in Singapore in November 2018.

26. The Subcommittee noted that the eleventh meeting of the Council of Asia-Pacific Space Cooperation Organization, hosted by the Government of the

Islamic Republic of Iran and organized by the Iranian Space Agency, had been held in Tehran from 11 to 14 September 2017.

27. The Subcommittee was informed about the preliminary interest of the United Arab Emirates to establish, in affiliation with the Office for Outer Space Affairs, the Center of Excellence for Safety in Space Environment and Activities, and to include that initiative in the "Space2030" agenda, subject to concluding discussions with the Office on the scope and associated agreement terms.